

## Letter by Rodu and Phillips Regarding Article, “Discontinuation of Smokeless Tobacco and Mortality Risk After Myocardial Infarction”

To the editor:

We read with interest the article by Arefalk et al reporting mortality incidence rates (deaths per 1000 person-years at risk [PYAR]) after a myocardial infarction among Swedish tobacco users who, following the myocardial infarction, continued to use snus (18.7), quit snus (9.7), continued to smoke (28.4), or quit smoking (13.5).<sup>1</sup> We have the following observations and suggestions.

We suggest that a stratified analysis by sex would have been a more informative approach for snus. The number of women among snus users is very small, so that any potential gain in power by their inclusion is offset by bias and instability.

The authors report that the mortality rate for the entire sample was 18.9. However, that rate is based on 812 deaths and 40370 PYAR, which actually yields 20.1. The reported mortality rate for the entire sample (18.9) is similar to that for continuing snus users (18.7), so it is important to clarify whether the discrepant number is the rate or the death count (ie, 765 deaths in 40370 PYAR yields a rate of 18.9).

Arefalk et al did not report the mortality rate among nonusers of tobacco, which constitute more than half of the sample. However, we estimated the nonusers' rate after subtracting the deaths and PYAR for snus, cigarette, and dual users from the sample totals (our estimate of deaths and PYAR among 934 dual users assumed that they were proportional to the mean of those statistics for snus users and smokers).

The estimated mortality rate among nonusers is 21.4, based on 494 deaths and 20031 PYAR. This is higher than the rate for continuing snus users (18.7), and far higher than that for snus quitters (9.7). In addition, it is higher than the rate for smoke quitters (13.5). The only group that fared worse than nonusers was continuing smokers (28.4). If the death count was instead 765, the nonusers' disadvantage would be reduced but not eliminated.

Thus, it appears that subjects who quit using tobacco products reduced their mortality risk by half in comparison with those who

continued, but also in comparison with nonusers. However, it is improbable that subjects who have had a myocardial infarction are better off if they use tobacco so that they can experience the benefits of quitting. We respectfully request that the authors calculate the rate for nonusers and adjust for age, which may explain part of the disadvantage among that group (the rates for smokers and smoke quitters were reported as age adjusted, but the rates for snus users and quitters were not). Direct comparison of age-adjusted mortality rates among nonusers, continuing snus users, and snus quitters would provide significant context and would enhance the study's contribution to the important public health issue of tobacco harm reduction.

## Disclosures

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**Brad Rodu, DDS**

*Department of Medicine, School of Medicine  
University of Louisville  
Louisville, KY*

**Carl V. Phillips, PhD**

*Consumer Advocates for Smoke-free Alternatives Association  
Springfield, VA*

## References

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Brad Rodu and Carl V. Phillips

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